

191
4 cont.
5 diameter ranging from 0.01 through 2 μm obtained from a radical polymeric monomer composition consisting essentially of:

6 (a) 20 through 99 wt% of styrene;

7 (b) 10 through 80 wt% of alkyl acrylate or alkyl methacrylate; and

8 (c) 5 through 10 wt% of polymeric monomer including a polar group, the polymeric
9 monomer including a polar group consisting of acrylic acid, methacrylic acid, 2-hydroxypropyl-N, N, N-
10 trimethylammonium chloride acrylate, vinylpyridine and N, N-diallylmethylammonium chloride;

11 a colorant; and

12 a solvent that is liquid at room temperature.

192¹
14. (Four Times Amended) Ink comprising:

2 a copolymer particle that has a glass transition point less than or equal to 45 °C, a softening point
3 measured by a flow tester ranging from 40 through 150°C and a volume average particle diameter ranging
4 from 0.01 through 2 μm obtained from a radical polymeric monomer composition consisting essentially of:

5 (a) 20 through 99 wt% of styrene;

6 (b) 10 through 80 wt% of alkyl acrylate or alkyl methacrylate; and

7 (c) 5 through 10 wt% of polymeric monomer including a polar group, the polymeric
8 monomer including a polar group consisting of acrylic acid, methacrylic acid, 2-hydroxypropyl-N, N, N-
9 trimethylammonium chloride acrylate, vinylpyridine and N, N-diallylmethylammonium chloride;

10 a colorant; and

102
cont.

11

a solvent that is liquid at room temperature.

103
2

16. (Four Times Amended) An ink cartridge including a case and ink which is stored in said case

and comprises:

a copolymer particle that has a glass transition point less than or equal to 45°C, a softening point measured by a flow tester ranging from 40 through 150°C and a volume average particle diameter ranging from 0.01 through 2 μ m obtained from a radical polymeric monomer composition consisting essentially of:

(a) 20 through 99 wt% of styrene; and

(b) 10 through 80 wt% of alkyl acrylate or alkyl methacrylate; and

(c) 5 through 10 wt% of polymeric monomer including a polar group, the polymeric monomer including a polar group consisting of acrylic acid, methacrylic acid, 2-hydroxypropyl-N, N, N-trimethylammonium chloride acrylate, vinylpyridine and N, N-diallylmethylammonium chloride;

a colorant; and

a solvent that is liquid at room temperature.

193
cont.
17. (Four Times Amended) A recording device including a head and an ink cartridge supplying ink to said head, wherein said ink comprises:

3 a copolymer particle that has a glass transition point less than or equal to 45 °C, a softening point
4 measured by a flow tester ranging from 40 through 150°C and a volume average particle diameter ranging
5 from 0.01 through 2 μ m obtained from a radical polymeric monomer composition consisting essentially of:

6 (a) 20 through 99 wt% of styrene; and

7 (b) 10 through 80 wt% of alkyl acrylate or alkyl methacrylate; and

8 (c) 5 through 10 wt% of polymeric monomer including a polar group, the polymeric
9 monomer including a polar group consisting of acrylic acid, methacrylic acid, 2-hydroxypropyl-N, N, N-
10 trimethylammonium chloride acrylate, vinylpyridine and N, N-diallylmethylammonium chloride;

11 a colorant; and

12 a solvent that is liquid at room temperature.
